IN THE CLAIMS

1. (original) An optical filter comprising:

a first lens system for converting an input beam into an output beam having a substantially eccentric cross-section; and

a linear variable filter for shifting a center wavelength response of said linear variable filter in a wavelength varying direction, said linear variable filter coupled to receive the output beam.

2. (original) The optical filter as defined in claim 1 wherein the first lens system comprises at least two lenses for shaping the output beam, said output beam being substantially focussed in the wavelength varying direction and substantially collimated in a substantially wavelength constant direction substantially perpendicular to said wavelength varying direction.

3. (original) The optical filter as defined in claim 2 wherein the first lens system is selected from the group consisting of a cylindrical lens, a spherical lens, a biconic lens, a GRIN lens, an aspheric lens, and a GRIN cylindrical lens.

4. (original) The optical filter as defined in claim 2 further comprising a second lens system coupled to receive a filtered beam from the linear variable filter, said second lens system for recoupling the filtered beam.

5. (original) The optical filter as defined in claim 4 wherein the second lens system is selected from the group of a cylindrical lens, a spherical lens, a biconic lens, a GRIN lens, an aspheric lens, and a grin cylindrical lens.

6. (original) The optical filter as defined in claim 2 further comprising means for tuning the optical filter.

7. (original) The optical filter as defined in claim 6 wherein the means for tuning comprise means for relatively translating the output beam and the linear variable filter in a direction substantially normal to a propagation direction of the output beam.

8. (original) The optical filter as defined in claim 7 wherein the means for translating is a stepper motor.

9. (original) The optical filter as defined in claim 7 wherein the linear variable filter is tilted about an axis in the substantially wavelength varying direction.

10. (original) The optical filter as defined in claim 7 further comprising first reflective means disposed to receive a back-reflected beam from the linear variable filter and to direct the back-reflected beam back to said linear variable filter for providing a second filtering.

11. (original) The optical filter as defined in claim 10 wherein the first reflective means is a mirror.

12. (original) The optical filter as defined in claim 10 further comprising a first optical circulator disposed to provide the input beam to the first lens system and to receive a beam reflected from the linear variable filter from the second filtering.

13. (original) The optical filter as defined in claim 12 further comprising a second optical circulator disposed to receive the filtered beam from the second lens system and wherein the second circulator has a second port for inputting an ADD beam.

14. (Withdrawn) The optical filter as defined in claims 4 further comprising a second reflective means for folding an optical path, the second reflective means being disposed between the first lens system and the second lens system.

15. (Withdrawn) The optical filter as defined in claim 14 wherein the second reflective means is one of a corner cube, an angled mirror, and a right angle prism.

16. (original) A method for reducing at least one of a beam size broadening and an angular broadening of a linear variable optical filter comprising the steps of:

providing an elliptical beam to the linear variable optical filter for reducing the angular broadening;

orienting a minor axis of the elliptical beam in a wavelength varying direction of the linear variable optical filter; and

focusing the elliptical beam in a wavelength varying direction of the linear variable optical filter for reducing the beam size broadening, said beam being substantially collimated in the wavelength varying direction corresponding to a major axis of the elliptical beam.

17. (original) The method as defined in claim 16 further comprising the step of providing the elliptical beam at an optimized angle relative to the major axis of the elliptical beam.

18. (original) The method as defined in claim 17 further comprising the step of tilting the linear variable filter about an axis in the substantially wavelength varying direction for minimizing a back-reflectance.

19. (original) An optical filter comprising:

an input port for launching an input beam comprising a plurality of wavelengths into the optical filter;

a first lens system for receiving the input beam from the input port and for providing a substantially elliptical beam, said elliptical beam being substantially focussed in a first direction and substantially collimated in a second direction substantially perpendicular to the first direction;

a linear variable filter for receiving the elliptical beam from the first lens system and for substantially transmitting a selected wavelength of the plurality of wavelengths and substantially reflecting remaining wavelengths of the plurality of wavelengths;

a second lens system for receiving the selected wavelength and for recoupling said selected wavelength; and

an output port for receiving the selected wavelength.

20. (original) The optical filter as defined in claim 19 further comprising means for tuning said optical filter.

21. (original) The optical filter as defined in claim 20 wherein the means for tuning comprise means for relatively translating the elliptical beam and the linear variable filter in a direction substantially normal to the propagation direction of the elliptical beam.

22. (original) The optical filter as defined in claim 21 wherein the first direction is a substantially wavelength varying direction and the second direction is a substantially wavelength constant direction and wherein said linear variable filter is tilted about an axis in the substantially wavelength varying direction.

23. (original) The optical filter as defined in claim 22 further comprising reflective means for receiving the reflected remaining wavelengths and for sending said reflected remaining wavelengths back to the linear variable filter for providing a second filtering for the selected wavelength.

24. (original) The optical filter as defined in claim 23 further comprising a first optical circulator disposed at the output port for at least one of receiving the selected wavelength and launching another signal at the selected wavelength into the optical filter.

25. (original) The optical filter as defined in claim 24 further comprising a second optical circulator disposed at the input port for launching the input beam into the optical filter and for receiving at least one of the remaining wavelengths reflected from the linear variable filter from the second filtering and the other signal at the selected wavelength.

26. (new) The optical filter as defined in claim 1, wherein the output beam is defined by a minor axis and a major axis; and wherein the minor axis of the output beam is disposed in the wavelength varying direction of the linear variable filter.

27. (new) The optical filter as defined in claim 19, wherein the output beam is defined by a minor axis and a major axis; and wherein the minor axis of the output beam is disposed in the wavelength varying direction of the linear variable filter.